CENTER FOR RAPID MICROBE DETECTION

CENTER

Established in 1998, the main goal of the Center for Rapid Microbe Detection is to develop technologies that lead to the real time detection of pathogenic microorganisms.

TECHNOLOGY

In order to detect specific pathogens in real time, novel pathogenic capture molecules, platforms, prototypes are being developed. The potential applications of the technology can span a number of industries including pharmaceutical, biotechnology, veterinary and biomedicine, agriculture, food processing, public health, defense, water and sewage treatment. Four technologies, each for a unique use or application, are being developed: ImunoFlow, ImmunoDNA, GlycoBind and TissueTag. Each technology is volume independent and is expected to perform in both small and large volumes.

ACCOMPLISHMENTS

Prototypes have been developed for ImmunoFlow for several different microorganisms including spores of *Bacillus globgii* , *E. coli* O157, *Salmonella* and *Lactobacillus*. The detection time for less than 10 cells in tens of liters is 30 minutes. The center now has three patents issued in the following areas: reconditioning antibiotic adulterated milk products (# 08/424,785), real time detection of antigens (#08/081,889); and immunoDNA capture and detection of contaminants onto a solid surface (#06/071,339). Two patent applications are pending in the following areas: immobilized glycolipids as pathogen capture molecules and tissue tag for the detection of infectious agents. The ImmunoFlow detection system has been licensed to Stellar Technologies LLC, Boise, ID.

CONTACT

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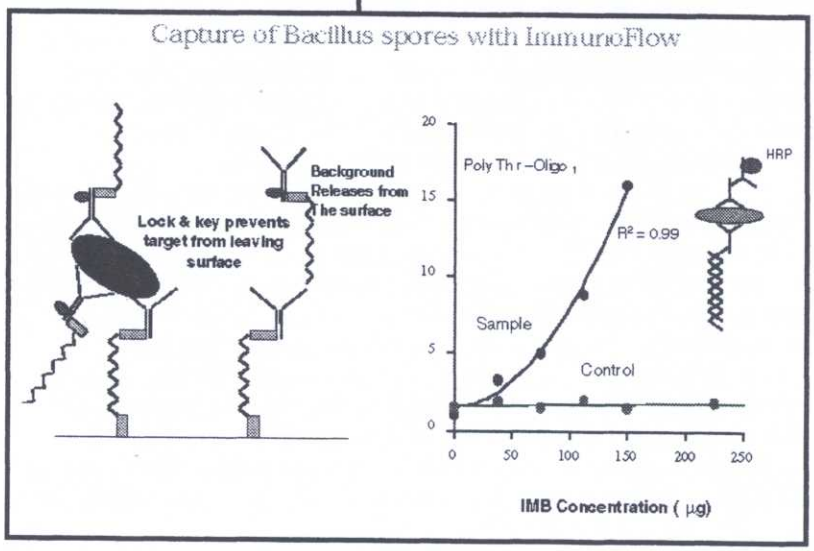
Can You Imagine...

... being able to detect less than 10 cells of a specific pathogen strain in tens of liters of a processed liquid food, for example milk, within 30 minutes?

THE CENTER DEVELOPS TECHNOLOGIES FOR THE REAL TIME DETECTION AND QUANTIFICATION OF MICROORGANISMS, ESPECIALLY HARMFUL PATHOGENS.



Diagramatic representation of: (1) Bacillus spores and E.coli 0157 ImmunoFlow (2) Capture DNA with Immuno DNA (3) Capture of E.coli 0157, Listeria, and Salmonella with GlycoBind